

REMARKS

I. Applicant's Statement of Substance of Interview

As an initial matter, Applicant greatly appreciates the courtesy and consideration extended to Applicant's representative during the telephone interview conducted on March 5, 2009. Pursuant to M.P.E.P. § 713.04, Applicant provides the following statement of the substance of the interview.

Applicant's representative and the Examiner discussed U.S. Patent No. 6,620,856 to Mortimer ("Mortimer") and U.S. Patent No. 5,432,239 to Egraz et al. ("Egraz"), as well as possible claim amendments proposed to be filed by Applicant. With regard to Mortimer, Applicant explained how the processing steps (a)-(e) disclosed by Mortimer, including those described at col. 2, lines 1-21 and claims 1-14, are directed to steps of producing an aqueous suspension of carbonate, including the use of dispersant, that take place only after any grinding of the carbonate material that may occur. Applicant explained that Mortimer thus fails to teach or suggest grinding of an inorganic particulate material in an aqueous suspension comprising a sub-effective amount of dispersant.

Applicant further discussed some differences between the subject matter recited in the claims of the present application and that of Egraz, as well as possible claim amendments—including recitations directed to grinding inorganic particulate material in an aqueous suspension comprising up to 0.19% by weight of the at least one dispersant, based on the dry weight of the inorganic particulate material, and/or comprising a solids level up to about 50% by weight. Finally, Applicant also discussed

possible additional claim amendments directed to grinding an inorganic particulate material in an aqueous suspension comprising a sub-effective amount of dispersant, followed by, after grinding, addition of a dispersant-effective amount of dispersant. Applicant discussed how Egraz fails to disclose any of those features.

Again, Applicant appreciates the Examiner's courtesy and consideration extended to Applicant's representative during the interview. If the undersigned misunderstood any part of the interview, as reflected in this statement of its substance, Applicant respectfully requests that the Examiner please contact the undersigned to discuss an appropriate resolution.

II. Status of Claims

Applicant understands that the claim amendments presented in the Amendment After Final dated January 21, 2009, have been entered by the Office, as indicated in the Advisory Action dated January 30, 2009. Should Applicant be mistaken, Applicant requests that the Examiner please contact the undersigned attorney, so that a claim set including those amendments may be re-presented.

By this Amendment, claims 42, 44, 46, 51-53, 55, 58-66, 69, and 71-78 have been canceled without prejudice or disclaimer, and claims 39, 41, 45, 47, 56, 57, and 68 have been amended. New claims 79-109 have also been added. Thus, claims 39-41, 43, 45, 47-50, 54, 56, 57, 68, and 79-109 are now present in this application and pending on the merits. No new matter has been added, and further, none of the subject matter altered or canceled via this Amendment is intended to be forfeited. Thus, Applicant expressly reserves the right to re-introduce and pursue claims directed to any such altered or canceled subject matter in this or a subsequent application.

III. Claim Rejections under 35 U.S.C. § 103(a)

A) The Rejections

In the final Office Action, claims 39-49 and 51-77 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 6,620,856 to Mortimer et al. ("Mortimer") in view of U.S. Patent No. 5,432,239 to Egraz et al. ("Egraz"), and claim 50 was rejected under 35 U.S.C. § 103 as allegedly being obvious over Mortimer in view of Egraz, and further in view of U.S. Pat. App. Pub. No. US 2001/0022282 to Nagaraj et al. ("Nagaraj"). In particular, the Office asserts that Mortimer teaches the use of dispersant

agent in an amount from 0.01 to 2.0% by weight, based on the dry weight of the inorganic particulate, and asserts that this amount overlaps with the amounts recited in the pending claims. Final Office Action at 4. The Office further asserts that Egraz teaches an overlapping amount of 0.2 to 2.0%, and asserts that, therefore, Mortimer and Egraz both disclose amounts of dispersants included by the claimed term “sub-effective.” *Id.*

B) Standard of Law

Obviousness under 35 U.S.C. § 103 must be determined based on the factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459 (1966). These inquiries include determining (1) the scope and contents of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. Graham, 383 U.S. at 16-17, 148 U.S.P.Q. at 467; see also KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1734, 82 U.S.P.Q.2d 1385, 1391 (2007) (advising that “the [Graham] factors continue to define the inquiry that controls.”). Applicant respectfully asserts that this long-standing test has not been met here.

C) Applicant's Traversal

As amended herein, the present application contains five independent claims (claims 39, 68, 80, 103, and 104) and 44 total claims. Applicant respectfully submits that each claim of this patent application is separately patentable and, upon issuance, would be entitled to a separate presumption of validity under 35 U.S.C. § 282. However, solely for convenience in handling in this response, Applicant has grouped the pending claims into the following three groups:

Group I - Claims 39-41, 43, 45, 47-50, 54, 56, 57, 68, and 79: Directed to a method of grinding an inorganic particulate material in an aqueous suspension, and an aqueous suspension of at least one ground inorganic particulate material, wherein the aqueous suspension comprises, *inter alia*, a sub-effective amount of at least one dispersant for the inorganic particulate material, wherein the aqueous suspension comprises up to 0.19% by weight of the at least one dispersant, based on the dry weight of the inorganic particulate material.

Group II - Claims 80-103: Directed to a method of grinding an inorganic particulate material in an aqueous suspension, and an aqueous suspension of at least one ground inorganic particulate material, wherein the aqueous suspension comprises, *inter alia*, a sub-effective amount of at least one dispersant for the inorganic particulate material, wherein said aqueous suspension comprises the inorganic particulate material at a solids level up to about 50% by weight, based on the total weight of the suspension.

Group III - Claims 104-109: Directed to a method of preparing an aqueous suspension of an inorganic particulate material, said method comprising: grinding an inorganic particulate material in an aqueous suspension, said aqueous suspension comprising a sub-effective amount of at least one dispersant for the inorganic particulate material; and adding, after grinding, at least one dispersant to said aqueous suspension in a dispersant-effective amount for the inorganic particulate material.

1) Group I (Claims 39-41, 43, 45, 47-50, 54, 56, 57, 68, and 79)

Mortimer, Egraz, and Nagaraj, whether taken alone or in any combination, fail to render obvious the pending Group I claims. As discussed with the Examiner during the telephone interview of March 5, 2009, Mortimer fails to teach or suggest at least the grinding of an inorganic particulate material in the presence of any dispersant, let alone in a sub-effective amount. The only teaching of the use of a dispersant in Mortimer is *after* any grinding may have already taken place, not during grinding, as claimed.

The Office has asserted that Mortimer teaches adding a dispersing agent “in at least one step prior to or during step (c),” and that, therefore, “the dispersants can be added to steps (a), (b) or (c), which involve the method of grinding the calcium

carbonate.” Advisory Action at 2. However, steps (a), (b), and (c) do not involve the method of grinding and are instead taught as taking place after any grinding of the carbonate may have occurred. In particular, Mortimer teaches that the first step, step (a), consists of “preparing a dilute aqueous suspension of the carbonate having a solids content of not more than 40% by weight,” and further, that “the carbonate in step (a) may be prepared from a natural source . . . by known grinding procedures.” See col. 2, lines 5-7 and claim 1; and col. 2, line 66 to col. 3, line 1 (emphasis added). Thus, the preparation of the carbonate, including any potential grinding, has already occurred before the preparation of a dilute aqueous suspension of that carbonate in step (a).¹ Therefore, whatever Mortimer may hypothetically teach about the use of dispersants in steps (a), (b), or (c), Mortimer fails to teach or suggest at least the use of a sub-effective amount of dispersant during grinding, as recited in Applicant’s Group I claims, and thus cannot render those claims obvious.

Similarly, Egraz also would not have rendered the pending Group I claims obvious. Each of the Group I claims recites, *inter alia*, “wherein the aqueous suspension comprises up to 0.19% by weight of the at least one dispersant, based on the dry weight of the inorganic particulate material.” Whatever Egraz may hypothetically teach about the grinding of inorganic particulate materials, it expressly teaches the use of a larger amount of dispersant than recited in the pending Group I claims (i.e., “in a proportion of 0.2 to 2%, by weight”). See col. 5, lines 20-26. As such, Egraz cannot

¹ This interpretation is further supported by the fact that each of the specific teachings of the use of dispersants in Mortimer are included in steps that occur after any grinding may have taken place. See col. 2, lines 1-60; col. 3, line 40, through col. 4, line 4, and claims 1-14.

render the subject matter of the Group I claims obvious, whether taken alone or in combination with Mortimer.

Furthermore, whatever Nagaraj may hypothetically teach about the dispersant hexametaphosphate, it fails to overcome the above-outlined deficiencies of Mortimer and Egraz. In particular, Nagaraj also fails to teach or suggest the grinding of an inorganic particulate material in an aqueous dispersion comprising a sub-effective amount of dispersant, let alone “wherein the aqueous suspension comprises up to 0.19% by weight of the at least one dispersant, based on the dry weight of the inorganic particulate material.” For at least these reasons, Applicant respectfully requests reconsideration and withdrawal of the rejection of the Group I claims under 35 U.S.C. § 103(a) based on any combination of Mortimer, Egraz, and Nagaraj.

2) Group II (Claims 80-103)

Mortimer, Egraz, and Nagaraj, whether taken alone or in any combination, fail to render the pending Group II claims obvious. For the same reasons as outlined above with respect to Group I, Mortimer fails to teach or suggest at least the grinding of an inorganic particulate material in the presence of a sub-effective amount of dispersant, and therefore, similarly would not have rendered the pending Group II claims obvious.

Egraz also would not have rendered the pending Group II claims obvious. Each of the Group II claims recites, *inter alia*, “wherein said aqueous suspension comprises the inorganic particulate material at a solids level up to about 50% by weight, based on the total weight of the suspension.” Whatever Egraz may hypothetically teach about the grinding of inorganic particulate materials, it expressly teaches grinding in the presence of a higher solids concentration than about 50% (i.e., “at least 70%”). See col. 2,

lines 54-63. As such, Egraz cannot render the subject matter of the Group II claims obvious, whether taken alone or in combination with Mortimer.

Furthermore, whatever Nagaraj may hypothetically teach about the dispersant hexametaphosphate, it fails to overcome the above-outlined deficiencies of Mortimer and Egraz. In particular, Nagaraj also fails to teach or suggest the grinding of an inorganic particulate material in an aqueous dispersion comprising a sub-effective amount of dispersant, wherein said aqueous suspension comprises the inorganic particulate material at a solids level up to about 50% by weight, based on the total weight of the suspension. For at least these reasons, Applicant respectfully requests reconsideration and withdrawal of the rejection of the Group II claims under 35 U.S.C. § 103(a) based on any combination of Mortimer, Egraz, and Nagaraj.

3) Group III (Claims 104-109)

Mortimer, Egraz, and Nagaraj, whether taken alone or in any combination, fail to render the pending Group III claims obvious. For the same reasons as outlined above with respect to Groups I and II, Mortimer fails to teach or suggest at least the grinding of an inorganic particulate material in the presence of a sub-effective amount of dispersant, and therefore, similarly would not have rendered the pending Group III claims obvious.

Egraz also would not have rendered the pending Group III claims obvious. Each of the Group III claims recites, *inter alia*, “grinding an inorganic particulate material in an aqueous suspension, said aqueous suspension comprising a sub-effective amount of at least one dispersant for the inorganic particulate material; and adding, after grinding, at least one dispersant to said aqueous suspension in a dispersant-effective amount for

the inorganic particulate material.” Whatever Egraz may hypothetically teach about the grinding of inorganic particulate materials, it does not teach or suggest grinding in the presence of a sub-effective amount of at least one dispersant followed by, after grinding, the addition of at least one dispersant in a dispersant-effective amount. As such, Egraz cannot render the subject matter of the Group III claims obvious, whether taken alone or in combination with Mortimer.

Furthermore, whatever Nagaraj may hypothetically teach about the dispersant hexametaphosphate, it fails to overcome the above-outlined deficiencies of Mortimer and Egraz. In particular, Nagaraj also fails to teach or suggest “grinding an inorganic particulate material in an aqueous suspension, said aqueous suspension comprising a sub-effective amount of at least one dispersant for the inorganic particulate material; and adding, after grinding, at least one dispersant to said aqueous suspension in a dispersant-effective amount for the inorganic particulate material.” For at least these reasons, Applicant respectfully requests reconsideration and withdrawal of the rejection of the Group III claims under 35 U.S.C. § 103(a) based on any combination of Mortimer, Egraz, and Nagaraj.

IV. Conclusion

For at least the reasons set forth above, Applicant respectfully requests reconsideration of this application, entry of the amendments, reconsideration and withdrawal of the claim rejections, and allowance of pending claims 39-41, 43, 45, 47-50, 54, 56, 57, 68, and 79-109.

Applicant respectfully submits that the final Office Action and Advisory Action contain a number of assertions concerning the related art and the claims. Regardless of whether those assertions are addressed specifically herein, Applicant respectfully declines to automatically subscribe to them.

If the Examiner believes that a telephone conversation might advance prosecution, the Examiner is cordially invited to call Applicant's undersigned attorney at (404) 653-6430.

Please grant any extensions of time required to enter this Amendment and charge any additional required fees to our Deposit Account 06-0916.

Respectfully submitted,

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